

a good deal that goes on in schools under the name of science-teaching will thank Prof. Tait for this courageous utterance. The mischief is that school-teaching is dominated by examinations, and that the kind of science-teaching which it is possible, and highly desirable, to have in schools does not readily lend itself to examination-tests of the ordinary kind.

The volume is marked by the same beauty and accuracy of printing as the former one. It is intimated that a third volume will complete the work.

HORACE LAMB.

#### WYATT'S BRITISH BIRDS.

*British Birds; with some Notes in reference to their Plumage.* By C. W. Wyatt. Coloured Illustrations. (London: William Wesley and Son, 1899.)

WHETHER the beautifully illustrated work on the same subject by the late Lord Lilford leaves room for the present volume and its predecessor, is a question for the publisher rather than for the reviewer to answer; but, if the stream of books on the subject be any criterion, the appetite of the British public for natural histories of the avifauna of their own country seems insatiable. Apart from all this, the present work, of which the first volume was issued in 1897, has high claims on the consideration of the public, the large size (4to.) of the paper on which they are printed permitting the plates to be on a scale of greater magnitude than in the work above-mentioned, while their excellence from an artistic point of view, as well as their apparent fidelity to nature, leaves little or nothing to be desired from the point of view of the connoisseur in animal painting. In too many instances we have either an inartistic but truthful portrait of the creature depicted, or an artistic picture in which details of coloration are sacrificed to the general effect; but in the present case, the happy mean appears to have been attained in these respects. The plates are signed with the initials "C. W. W.," but we are told in the preface that the colouring has been done by the daughters of Dr. Bowdler Sharpe, whose training is a sufficient guarantee for its accuracy.

It must, indeed, be understood that the book stands or falls by the plates, as the letterpress is restricted in the main to details concerning the plumage of the specimens figured, or to generalities relating to seasonal changes of colour, nothing in the way of description being given.

When the scientific names applied to the different species are those of almost universal acceptance, no references to other works are added; but in the case of those where uniformity is by no means general, a reference is made to the synonyms used in standard manuals, such as the fourth edition of "Yarrell." It may be added that the reference to the latter work in the case of the Hen-Harrier appears to have been introduced by mistake, as the nomenclature employed is the same. As regards generic nomenclature, the author adopts a middle course, avoiding the inordinate "splitting" followed by some ornithologists, as he does the excessive "lumping" favoured by others.

The first volume was devoted to the resident Passeres of the British Islands, and as the present commences with

the migratory members of the same order, it will be evident that the author does not confine himself to a strictly systematic arrangement. In excluding the casual visitors, which, in our own opinion, have no right whatever to the title of British Birds, the author differs from the plan followed by some of his brother ornithologists, whose object seems to be to draw up as long a list as possible, without any regard to the facts of geographical distribution. The other groups included in this volume include the Picarians, Owls, Hawks, and Pigeons, so that the Game Birds, Waders, and Water-Birds alone remain for its successor.

As a handsome, and at the same time an accurate, series of volumes for the drawing-table, the work may be heartily commended to all bird-lovers with whom "money is no object."

R. L.

#### OUR BOOK SHELF.

*Our Native [American] Birds, how to protect them, and attract them to our homes.* By D. Lange. Pp. x + 162. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1899.)

LEST our readers should be misled into thinking that the present little volume is but another item in the already large literature of British ornithology, we have ventured to indicate its birth-place by a bracketed interpolation in the title.

The author, to whom the love of birds is evidently second nature, starts with the assertion that, with the exception of a few counties, the number of song-birds has of late years been steadily decreasing in the United States, and then proceeds to consider in detail—firstly, how this unfortunate state of things has been brought about, and, secondly, how it may best be remedied. Nor are song-birds alone considered, a certain amount of space being devoted to game-birds (inclusive of the *Anatidae*), many of which have likewise suffered severely.

The fact of the decrease in the former group seems to rest on conclusive evidence; the main causes assigned being lack of suitable nesting-places, want of water and food, the abundance of cats (domestic and feral), the ravages committed by boys, collectors, and plume-hunters, the aggressive habits of the English sparrow, and the use of poison in gardens and farms.

As regards legislative protection, the author wisely leaves this to the various "Audubon Societies," which have been established in the States, and other suitable agencies; devoting his attention mainly how to supply to his feathered friends such objects as are essential to their well-being, and how to guard them from the attacks of their chief foes. As our readers are aware, many towns and villages in the States are located on the open prairie, where the absence of cover renders the birds especially liable to destruction; while even in districts more favoured by nature there seems to be a great tendency to make the gardens of residents as open and bare of shrubbery as possible. Old hollow trees, too, which form the nesting-places of so many species, have likewise been ruthlessly felled, so that the unhappy birds have literally no retreats wherein to hide.

Accordingly, the planting of trees, vines and shrubs (especially kinds which afford good cover and edible berries) is strongly urged, while beds of suitable kinds of flowers, such as gladioli, should be planted to attract humming-birds. For species building in hollow trees, nesting-boxes should be provided in suitable sites; while drinking and bathing vessels should be furnished in the dry season, and abundance of suitable food at all times. The noxious sparrow is to be hustled out of the usurped nesting-places, while coils of barbed wire, or suitable

wire fences, must be used to balk prowling cats. As to the best means of dealing with the human foes of birds, these, as already said, are mainly left to the powers that be; but the formation of "bird-leagues," by members of the female sex who are willing to forego the ornamentation of their head-gear by the plumes of songsters, is strongly urged, as is the repression of the ordinary collector. Education, and the establishment of an annual "bird-day," are also regarded as important factors in the scheme.

The author has performed his task in a manner calculated to interest his readers, and his work should be acceptable to those on both sides of the Atlantic who love to hear bird-music around their homes. R. L.

*Der Ursprung der Kultur.* Von L. Frobenius. Bd. i. Der Ursprung der Afrikanischen Kulturen. Mit 26 Karten, 9 Tafeln, sowie ca. 240 Text illustrationen. Pp. xxxi + 368. (Berlin: Gebrüder Borntraeger, 1898.)

THIS is the first volume of an ambitious work. The author proposes to seek out the Origin of Civilisation on what he considers to be a new plan. But in reality Mr. Frobenius can only work on the old lines; he can only compare one custom with another, and use the same old weak argument from analogy to prove connection between tribes who have similar customs: "er lehrt alte Weisheit als neue." ("Programm": p. xii.). He proclaims the virtues of his "new plan," however, in the very manner of the Teutonic *Gelehrte*: he considers himself to be laying the foundations of a new science (p. xiv.): "Was bedeuten alle Entbehrung und Entsagung, wenn sie auch noch so herb sein mögen, gegenüber dem grossen Glücke, schaffend und Schöpferisch bei der Gründung einer Wissenschaft teilnehmen zu können. Ich habe die bitteren Stunden und herben Übel nie so stark empfunden, wie die Freude über die Erfolge, das stolze Gefühl des selbstständigen Schöpfers. Und ich habe den herzlichen Wunsch, dass etwas von jener Spannkraft, die Müdigkeit und alle sonst vielleicht verzeihlichen und berechtigten Wünsche vergessen lässt, aus diesen Blättern dem Leser bemerkbar werden und in ihn übergehen möge." The italics are our own: we greatly fear that Mr. Frobenius, like so many of his "Fachgenossen," has no sense of humour. He does not forget to castigate his predecessors in ethnological study, some of whom are apparently prone to set fool's caps on their heads and give them out to be academical costume (p. ix.). The whole "Programm" which precedes the book is a typical product of what the author himself calls the "überhitzten Gelehrtenkopf" (p. ix.).

Apart from the rather ridiculous pretensions of its introduction, the book as a whole is useful enough as a series of essays on various phases of African ethnology, which are often very interesting, e.g. the chapter on building-styles (p. 194 ff.). They cannot, however, be said to prove much with regard to the origin of African civilisation, which is presumably what they are intended to do. The author's arguments in favour of his theory of the "Malayonigrithish" origin of West African culture are interestingly put forward.

Absolutely nothing whatever is said about *Ancient Africa*: not a word with regard to the Zimbabwe ruins, which we had expected to find exhaustively discussed here: not a word about the wonderful civilisation of Egypt, with the earliest beginnings of which we have now, thanks to the energy of Prof. Petrie and Messrs. Quibell, De Morgan and Amélineau, been brought into close contact, and which appears more and more African in character the further we go back. Not a single comparison of the Zulu and Egyptian head-rests even, to take the instance which first comes to mind; but a curious misapprehension on p. 97, where Fig. 60 is described as a "Sceptermesser der Pharaonen," whatever that may be: the object in question is merely the well-

known and commonly-used Egyptian sword called *Khepesh* (on account of its resemblance to the shape of an animal's thigh, e.g. *khepesh*), which had nothing in particular to do with either Pharaohs or sceptres.

Of the illustrations, while the majority are good, some are certainly very bad, e.g. Plate iv. and Figs. 137, 139.

*The Amateur's Practical Garden Book.* ("The Garden Craft Series.") By C. E. Hunn and L. H. Bailey. Pp. vi + 250. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1900.)

THE sub-title of this book very aptly indicates the nature of its contents, "The simplest directions for the growing of the commonest things about the house and garden."

The subjects dealt with are arranged alphabetically, beginning with Abobra and ending with Zinnia. It must not, however, be concluded that the book is merely a dictionary of plant names. It is much more.

Thus, under the heading "Annuals," we have an explanation of the term, the cultural details necessary for their proper growth, together with lists classified according to the colour of the flower, or the purpose the flowers have to serve.

The book is written for the climate of New York, but with the requisite modifications it is suitable for gardeners in this country also. It is severely practical, and principles, though perceptibly diffused, are not so much as mentioned.

*Man and his Ancestor: a Study in Evolution.* By Charles Morris. Pp. 238. (New York: The Macmillan Company. London: Macmillan and Co., Ltd., 1900.)

THE author has written this little book for the purpose of providing the intelligent person with a good and sufficient reason for the evolutionary faith that is in him. It is true that there is no book of a non-technical nature that quite covers the ground taken by the author, and it is only fair to him to state that he has filled this gap in a most creditable manner. It is obvious that many stages in the evolutionary history of man can only be guessed at by us, and that there is much room for discussion in these hypotheses as well as in the interpretation of accepted facts; but Mr. Morris is not aggressively dogmatic, nor has he striven to be sensational. There are, however, several statements to which exception can be taken in the chapter on the "Vestiges of Man's Ancestry." If Mr. Morris thinks the function of the thyroid is a "minor and obscure one," let him have his own excised and then he will know. Club foot is not generally regarded as a reversion to the anthropoid foot. Taking it all round, the book may be safely recommended to that class of readers for whom it was intended, and it may lead such to consult the recognised works on the various topics on which he touches. Owing to no references being given, inquirers will have to seek elsewhere for an introduction to the literature of human evolution. The author has not considered his little book worthy of an index.

*A First Geometry Book.* By J. G. Hamilton and F. Kettle. Pp. ii + 91. (London: Edward Arnold, 1900.)

THIS little book contains a series of elementary exercises in geometry based on the method of allowing the pupil to deduce as many principles as possible after, and from the results of, experiments or exercises dependent on them. The deductions are drawn from the pupil's own measurements of his drawings to scale of the usual geometrical figures. From this it will be understood that the book really consists of a series of graduated exercises which appear to be well chosen and arranged, and likely to prove suggestive to teachers and useful to students beginning their first studies of the subject.